Amendments to the Specification:

Please replace the paragraph beginning on page 1, line 13 with the following rewritten paragraph.

A conventional arrangement and structure of contacts of a sliding step switch is shown in Figs. 12-14. The arrangement depicts a three function configuration 510 for a sliding switch. A circuit board substrate 512 is formed of a synthetic resin made of an insulating material. A first conductive stationary contact pad 514 connected to a positive terminal of a power source is disposed on substrate 512. Second, third, and fourth conductive stationary contact pads 516, 518, 520 connected to a negative terminal of a power source through an electrical load via a ground connection are disposed on substrate [12] 512. An insulating material 522 such as a solder mask is disposed between contact pads 514, 516, 518, 520.

Please replace the paragraph beginning on page 2, line 19 with the following rewritten paragraph.

Under specific voltage and current conditions, an arc is initiated at the last point of electrical contact as the electrical contacts are moved apart from each other ~~and the electric potential between them causes electrons to bridge the interconnect space region~~. ~~A current is maintained in the arc until the spacing between the contacts, and thus the resistance, increases enough to prevent electrons from bridging the gap.~~ The current flowing through the gap between contacts generates heat, resulting in temperatures high enough to cause arc erosion; [[as]] some of the ~~contact material and~~ nearby insulation ~~is~~ may be burned away.

Please replace the paragraph beginning on page 3, line 11 with the following rewritten paragraph.

~~Consequently, during the life of the switch as the contact head passes across a debris field in a stationary contact pad, contact resistance between the contact head and contact pad increases across the line of contact points so that arcing occurs before the contact head reaches the edge of the switching pad. This occurrence adds to the size and density of the debris field.~~ Sliding movement of the contact head through the debris field also causes debris particles to be dragged into a main or steady state area of contact, known as a contacting zone 542, on the stationary contact pad 520 resulting in increased contact resistance when the contact head electrically contacts the contacting zone on the stationary contact pad during steady state use of the switch. The switch fails when debris causes the resistance between contacts to increase to a level whereby the contacts can no longer effectively complete a circuit or resistance becomes unacceptably high. Fig. 16 illustrates a graph showing voltage drop across contacts as a function of switching cycles of a conventional switch. In the illustrated example, voltage begins to increase and become unstable after about 25 arcing cycles.

Please replace the paragraph beginning on page 14, line 7 with the following rewritten paragraph.

Second contact arrangement 310 is configured such that as the switch moves from an ON position to an OFF position, first movable contact [[126]] 326 breaks contact first from first stationary contact pad 314 before breaking from one of second, third, or fourth contact pads 316, 318, 320. Second contact arrangement 310 is also configured such that as the switch moves from an OFF position to an ON position, second movable contact [[128]] 328 makes contact with one of second, third, or fourth contact pads 316, 318, 320 before first

movable contact 326 makes contact with ~~makes contact with~~ first stationary contact pad 314. Consequently, arcing occurs between first movable contact 326 and first stationary contact pad 314 and does not occur for a significant portion of the service life of switch between second movable contact 328 and second, third, and fourth stationary contacts pads 316, 318, 320. This is advantageous in that conductive arc debris does not form between second, third, and fourth stationary contact pads 316, 318, 320 that reduces the dielectric strength between adjacent pads or which could cause a conductive circuit to form between pads. Protruding portions 344a, 344b are illustrated on second portion 362 of first stationary contact pad 314. Arcing generally occurs at the protruding portions 344a, 344b generally within path 370.

Please replace the paragraph beginning on page 15, line 3 with the following rewritten paragraph.

[[Fig.4]] Fig. 4 illustrates a third contact arrangement 410 for a sliding switch. Third contact arrangement 410 is similar to arrangement 310 depicted in Fig. 3 and includes a first stationary contact power pad 414 which is connected to a positive terminal of a power source. First stationary contact power pad 414 includes first, second, and third conductive pad portions 460, 462, 464 with a first insulating region 466 being disposed between first and second pad portions 460, 462 and a second insulation region 468 being disposed between second and third pad portions 462, 464. A third insulating region 480 exists between first and second stationary contact pads 416, 418 and a fourth insulation arrangement 482 exists between second and third stationary contact pads 418, 420.

Amendments to the Claims:

Please add claims 8-10 and cancel claim 5, without prejudice or disclaimer, as follows. The listing of claims below will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original): A contact structure for a sliding switch, comprising:

a conductive stationary contact disposed on a base; and

a conductive movable contact for electrically contacting said stationary contact, said movable contact being movable along a path between a non-contact position and a make contact position with respect to said stationary contact,

at least one of said stationary contact and said movable contact having a protruding portion that provides an electrical interface for discharge of arcing as said movable contact breaks from said stationary contact.

Claim 2 (original): The contact structure for a sliding switch as recited in claim 1, wherein said stationary contact is a flat pad.

Claim 3 (original): The contact structure for a sliding switch as recited in claim 2, wherein said movable contact is generally substantially shaped as a cylinder.

Claim 4 (original): The contact structure for a sliding switch as recited in claim 3, wherein said movable contact is oriented such that a radius of said cylinder is parallel with respect to said path.

Claim 5 (cancelled)

Claim 6 (original): A contact structure for a sliding switch, comprising:

a conductive stationary contact disposed on a base;

a conductive movable contact disposed to slide with respect to said stationary contact along a path extending between a non-contact position where said movable contact is electrically isolated from said stationary contact and a make-contact position where said movable contact maintains a primary electrical interface with said stationary contact;

a contacting zone defined on said stationary contact that electrically makes contact with said movable contact when said movable contact is in said make-contact position; and

an arcing zone defined on said stationary contact that electrically breaks from or makes said movable contact when said movable contact moves from said make-contact position to said non-contact position and vice versa, said arcing zone providing an electrical interface where arcing occurs between said stationary contact and said movable contact,

wherein said stationary contact and said movable contact are mutually shaped and oriented such that when said contacting zone is projected along said path onto said arcing zone, at least a portion of a projection of said contacting zone lies outside said arcing zone thereby providing a region within said contacting zone which is generally outside of an arcing erosion debris path created by said movable contact as said movable contact slides across said stationary contact.

Claim 7 (original): A method of preventing degradation in performance of a sliding switch comprising the steps of:

providing a conductive stationary contact disposed on a base;

providing a conductive movable contact for electrically contacting said stationary contact, said movable contact being movable along a path between a non-contact position and a make contact position with respect to said stationary contact; and causing arcing to occur outside said path upon engagement or disengagement between said contacts.

Claim 8 (new): A method of preventing degradation in performance of a sliding switch comprising the steps of:

providing a conductive stationary contact;

providing a conductive movable contact for electrically contacting said stationary contact, said movable contact being movable along a path between a make contact position and a non-contact position with respect to said stationary contact; and

providing at least one protrusion on at least one of said contacts to provide an electrical interface for discharge of arcing as said movable contact breaks from said stationary contact, wherein said at least one protrusion being configured to direct said discharge of arcing away from at least a portion of said path.

Claim 9 (new): A contact structure for a sliding switch, comprising:

a first and a second conductive stationary contact; and

a conductive movable contact for electrically connecting said first and second stationary contacts, said movable contact being movable between a make contact position wherein said movable contact electrically connects said stationary contacts and a non-contact position wherein said stationary contacts are electrically isolated, said movable contact being adapted to break simultaneously from said first and second stationary contacts

as said movable contact moves from said make contact position toward said non-contact position.

Claim 10 (new): A contact structure for a sliding switch, comprising:

a first and a second conductive stationary contact of a first polarity disposed on a base;

a conductive third stationary contact of a second polarity opposite said first polarity disposed on said base, said third stationary contact including a first and a second conductive portion;

an insulation disposed between said first, second, and third stationary contacts and between said first and second conductive portions of said third stationary contact; and

a conductive movable contact disposed to slide between a first contact position wherein said movable contact electrically connects said first stationary contact and said first portion of said third stationary contact, and a second contact position wherein said movable contact electrically connects said second stationary contact and said second portion of said third stationary contact, a non-contact position being located between said first and second contact positions wherein said stationary contacts are electrically isolated, said movable contact being adapted to break from said first portion of said third stationary contact before said movable contact breaks from said first stationary contact as said movable contact moves from said first contact position toward said non-contact position thereby directing discharge of arcing to said third stationary contact and preventing degradation of insulation performance between said first and second stationary contacts.

Drawing Corrections:

The attached seven replacement drawing sheets correct deficiencies in previously submitted Figures 4 and 14 and replace hand drawn reference numerals and lead lines with more uniform characters. The third replacement sheet corrects Figure 4, which previously omitted reference numerals 416, 418, 420, 466, 468, 480, and 482. The sixth replacement sheet corrects Figure 14, which previously omitted reference numeral 524. Annotated sheets showing the changes to Figs. 4 and 14 are also attached.